

SIT378 – DiscountMate User Database – Managed Azure MySQL Guide

Setup

- Go to <https://portal.azure.com/> and create an account or login with the provided account.
- Press create resource and search for “Azure Database for MySQL”.
- Press create flexible server.
- Fill in like the following images with different names for updated server.

The screenshot displays the 'Create new' page for an Azure Database for MySQL flexible server. The page is divided into several sections:

- Basics:** Includes tabs for Basics, Networking, Security, Tags, and Review + create. A note states: "Create an Azure Database for MySQL flexible server. [Learn more](#)".
- Project details:** Includes a note about free usage for new users. Fields for Subscription (Azure for Students) and Resource group ((New) DiscountMate_JB) are shown.
- Server details:** Includes fields for Server name (discountmate-user-db-example), Region (West US 2), MySQL version (8.0), and Workload type (For development or hobby projects).
- Compute + storage:** Includes a dropdown for Compute + storage (Burstable, B1ms) and a dropdown for Availability zone (No preference).
- Estimated costs:** A sidebar on the right shows estimated costs for Compute Sku (USD 12.41/month), Storage (USD 2.30/month), Auto scale IOPS, Backup Retention, and Bandwidth. The total estimated cost is USD 14.71/month.

At the bottom, a note states: "Availability zone selection is not available at this time for the selected compute size in region 'westus2'. Try different compute size if Availability zone preference is required."

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- Note - West US 2 was chosen because it was cheaper. If using in production, choose Australia East.

Authentication

1 Azure Active Directory (Azure AD) is now Microsoft Entra ID. [Learn more](#)

Select the authentication methods you would like to support for accessing this MySQL server. MySQL password authentication allows you to create and use a ROLES (usernames) and use a password to authenticate. Enabling Microsoft Entra authentication allows you to create ROLES based on your Microsoft Entra accounts and generate an authentication token with which to authenticate. [Learn more](#)

Authentication method

☒ MySQL authentication only

☐ Microsoft Entra authentication only

☐ MySQL and Microsoft Entra authentication

Admin username *

DiscountMate_UserDB_Example

Password *

.....

Confirm password *

.....

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- The example instance is using the following password - Parakeet2-Unpicked3-Stumbling4-Chatter5-Gathering4

Basics **Networking** Security Tags Review + create

Configure networking access and security for your server.

Network connectivity

You can connect to your server by specifying a public IP address, creating private endpoints or from within a selected virtual network.

Connectivity method

☒ Public access (allowed IP addresses) and Private endpoint

☐ Private access (VNet Integration)

Connections from the IP addresses configured in the Firewall rules section below will have access to this server. By default, no public IP addresses are allowed. [Learn more](#)

Public access

☒ Allow public access to this resource through the internet using a public IP address

Firewall rules

Inbound connections from the IP addresses specified below will be allowed to port 3306 on this server. [Learn more](#)

☐ Allow public access from any Azure service within Azure to this server

+ Add current client IP address (156.146.51.83) + Add 0.0.0.0 - 255.255.255.255

| Firewall rule name | Start IP address | End IP address | |
|---|---|---|--|
| ClientIPAddress_2024-5-15_5-43-11 | 156.146.51.83 | 156.146.51.83 | |
| <input type="text" value="Firewall rule name"/> | <input type="text" value="Start IP address"/> | <input type="text" value="End IP address"/> | |

Private endpoint

Create private endpoints to allow hosts in the selected virtual network to access this server

+ Add private endpoint Delete

| Name | Subscription | Resource group | Location | Subnet |
|-----------------------------------|--------------|----------------|----------|--------|
| No results | | | | |
| <div><div></div><div></div></div> | | | | |

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Basics Networking Security Tags **Review + create**

Creation time

Estimated Server Creation Time (in minutes) 5

Product details

Azure Database for MySQL
by Microsoft
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Basics (Change)

| | |
|-----------------------------------|---|
| Subscription | Azure for Students |
| Resource group | DiscountMate_JB |
| Server name | discountmate-user-db-example |
| Server admin login name | DiscountMate_UserDB_Example |
| Location | West US 2 |
| Availability zone | No preference |
| High availability | Not Enabled |
| MySQL version | 8.0 |
| Compute + storage | Burstable, 81ms, 1 vCores, 2 GiB RAM, 20 storage, Auto scale IOPS |
| Backup retention period (in days) | 7 day(s) |
| Accelerated Logs (preview) | Not Enabled |
| Storage Auto-growth | Enabled |
| Geo-redundancy | Not Enabled |

Networking (Change)

| | |
|---|---|
| Connectivity method | Public access (allowed IP addresses) and Private endpoint |
| Allow public access to this resource through the internet using a public IP address | Yes |
| Allow public access from any Azure service within Azure to this server | No |
| Firewall rules | 1 |
| SSL/TLS | SSL is enforced and TLS version is 1.2. This can be changed after server is created. Learn more |

Security (Change)

| | |
|-----------------|---------------------|
| Data encryption | Service-managed key |
|-----------------|---------------------|

Tags (Change)

- Once created and deployed, go back to home and click on resource groups to check the server is running.

The screenshot shows the Azure portal interface for the 'discountmate-user-db' resource. The left sidebar contains a navigation menu with various tabs. The main content area is divided into several sections. The 'Monitoring' tab is active, displaying a 'Server logs' section with a 'Server logs' button and a 'Visualize data with workbooks' section with a 'Visualize data with workbooks' button. Below these are 'Resource Health' and 'Activity Logs' sections. At the bottom, there are two charts: 'Cpu and Memory' and 'IO Count', both showing data for the last 1 hour.

Accessing the Database

- Download MySQL workbench from <https://dev.mysql.com/downloads/workbench/>
- Press the plus icon next to MySQL Connections
- Using the server admin name and server admin login name information from above, fill in the connection details as the following:

Setup New Connection

Connection Name: Type a name for the connection

Connection Method: Method to use to connect to the RDBMS

Parameters ☒ SSL ☐ Advanced

Hostname: Port: Name or IP address of the server host - and TCP/IP port.

Username: Name of the user to connect with.

Password: The user's password. Will be requested later if it's not set.

Default Schema: The schema to use as default schema. Leave blank to select it later.

- Open the connection and test it by running `SELECT NOW()` and if the time comes back, you have successfully connected.